

Amendments to the Specification:

Please amend paragraphs [0014], [0015], and [0016] of the present specification as follows:

[0014] Because the statistical record purge procedure takes a finite amount of time and results in the statistics database being inaccessible to the statistics server(s) while the procedure is running, the temporary memory or log space for the statistics server(s) must have sufficient room to store all the new records generated by the statistics server(s) while the purge procedure is running. Otherwise, potentially important newly generated statistical records may be lost due to log space overflow. In an exemplary embodiment of the invention the additional instructions calculate whether there is 90% or more log space free before calling on the purge script to execute. If not, the scheduler on the fault server waits for approximately 30 seconds before checking the free log space again. The amount of free log space that is required will necessarily depend on a number of factors such as the number of statistical records likely to be generated during the time the purge script is running, how often the purge procedure is run (e.g., hourly, bi-hourly, daily, etc.), the size of the log space (e.g., 2052 Megabytes in the exemplary embodiment noted above), the size of the statistical records generated by the statistics server(s), and the like. Pseudocode for these instructions in accordance with an exemplary embodiment of the invention appear in ~~Appendix~~ Source Code Listing A ~~attached hereto~~ shown below. Also, Fig. 3 illustrates in flow diagram form the method outlined above.

[0015] Note also that in the exemplary embodiment illustrated in ~~Appendix~~ Source Code Listing A, statistical records are maintained in the statistics database(s) for 30 days, the purge procedure is run once daily, and it takes approximately 20 minutes for the purge script to execute once it has been called by the scheduler on the fault server(s).

[0016] Another improvement to existing statistical record purge procedures that may be implemented is to update the pointers and/or indices in the statistics database(s) following the execution of the purge script. Updating the pointers results in notably faster read and write operations in the statistics database(s). Pseudocode for the instructions to update the pointers and indices in accordance with an exemplary embodiment of the invention are ~~attached hereto~~ shown below as Appendix Source Code Listing B.

Please add the following tables (i.e. Source Code Listing A and Source Code Listing B) to the end of paragraph [0016]:

Source Code Listing A

check_purge.sh

```
prog=`basename $0`  
  
if test $# -lt 1  
then  
    echo "Need dbname" >>/opt/BulkStats/etc/$prog.log  
    exit 1  
fi  
  
if test -s /opt/BulkStats/etc/$prog.log  
then  
    dte=`date +%d%b%Y`  
    mv -f /opt/BulkStats/etc/$prog.log \  
        /opt2/BulkStats.var/$prog.log@$dte  
    compress -f /opt2/BulkStats.var/$prog.log@$dte  
fi  
  
DBNAME=NAVIS-STATN  
export prog DBNAME  
  
if ping -I 1 navis-statn 24 1|grep "0 packets received"  
then  
    echo "navis-statn not responding at `date`" \  
        >>/opt/BulkStats/etc/$prog.log 2>&1  
    rm -f /BulkStats/data/NXStatisticsCbxGbx.purging  
    exit 1  
fi
```

```
#####
# lock out other db type cron jobs !
#####
touch /BulkStats/data/NXStatisticsCbxGbx.purging

#####
# this is a routine to check for an empty db log, if not
# sleep up to 10 minutes waiting for one
#####
check_db ()
{
    #####
    # loop up to 12 times, i.e. 6 minutes, until the logfile is
    # close to 100% free
    #####

    cnt=12
    while true
    do
remsh $DBNAME -l sybase -e /opt/sybase/query >/tmp/$prog.$$ 2>&1 <<!
sp_helpdb $1
go
quit
exit
!
LogSize=`cat /tmp/$prog.$$ | grep _log | awk '{print $2,$6}'`

        rm -f /tmp/$prog.$$

        Size=`echo $LogSize | awk '{print $1}' | cut -f1 -d'.'`
        Free=`echo $LogSize | awk '{print $2}'`

        Size=`expr $Size \* 1024000`
        Free=`expr $Free \* 100000`

        WFree=`expr $Free \* $Size`
        RFree=`expr $Free \% $Size`
        RFree=`echo $RFree | cut -c1-2`

        echo "$1 has $WFree.$RFree free logspace at `date`" \
            >>/opt/BulkStats/etc/$prog.log 2>&1

        if test $WFree -gt 85
        then
            echo >>/opt/BulkStats/etc/$prog.log 2>&1
            break
        else
            sleep 30
        fi
    done
}
```

```
        fi
        cnt=`expr $cnt - 1`
        if test $cnt -lt 0
        then
            echo "$prog: aborting because of full db log for $1" \
                >>/opt/BulkStats/etc/$prog.log 2>&1
        fi
    done
}

export MinTime MaxTime
echo "$prog:\tStarting at `date`\n" >>/opt/BulkStats/etc/$prog.log
check_db "$1"

for x in TrkStat CktStat TrunkStat FrCktStat FrLportStat ATMCKtStat ATMPrtStat \
    ATMSvcStat ATMTrkStat ATMLPrtNiStat ATMLPrtTrkStat ATMFirstTrkStat \
    ATMOptTrkStat IpLportStat SmdsLportStat
do

    MinTime=`remsh $DBNAME -l sybase -c /opt/sybase/query <<!  
use $1  
go  
select min(startTime) from $x  
go  
quit  
exit  
!`

    if echo $MinTime | egrep "NULL|Msg" >/dev/null  
then  
echo "No table data for $x\n" >>/opt/BulkStats/etc/$prog.log  
continue  
fi

    MinTime=`echo $MinTime | awk '{print $2}'`  
echo "$x:\tMinTime <$MinTime>" >>/opt/BulkStats/etc/$prog.log

    if test $MinTime -le 950000000  
then  
echo "$x:\tbad number for MinTime" \
        >>/opt/BulkStats/etc/$prog.log  
continue  
fi

    MaxTime=`/BulkStats/bin/perl5 -e '$utcseconds=time();print "$utcseconds\n"'`  
echo "$x:\tMaxTime <$MaxTime>" >>/opt/BulkStats/etc/$prog.log  
if test $MaxTime -le 950000000  
then
```

```
        echo "$x:\tbad number for MaxTime" \
            >>/opt/BulkStats/etc/$prog.log
        continue
    fi

    DiffTime=`expr $MaxTime - $MinTime`
    DiffTime=`expr $DiffTime / 86400`

    echo "$x:\tnumber of days in database is $DiffTime\n" \
        >>/opt/BulkStats/etc/$prog.log

    #####
    # delete all records older than 30 days
    #####
    if test $DiffTime -gt 31
    then
        Ttime=`expr $DiffTime - 31`
        DelTime=0
        export DelTime

        while true
        do
            if test $Ttime -eq 0
            then
                break
            fi

            DelTime=`expr "$MinTime" + 86400`
            MinTime=`expr "$MinTime" + 86400`
            export DelTime MinTime

            echo "$x:\tDelTime <$DelTime>" \
                >>/opt/BulkStats/etc/$prog.log
            echo "$x:\tdelete $x where startTime < $DelTime at `date`\n" \
                >>/opt/BulkStats/etc/$prog.log

            #####
            # execute the 'query' file on remote server so
            # passwd is not exposed !
            #####
            remsh $DBNAME -l sybase -e /opt/sybase/query \
                >>/opt/BulkStats/etc/$prog.log 2>&1 <<!

        use $1
        go
        delete $x where startTime < $DelTime
        go
        checkpoint
        go
        quit
        exit
    fi
```

```
!  
DiffTime=`expr $DiffTime - 1`  
echo "\n${x}:\tnumber of days left in database is $DiffTime" \  
    >>/opt/BulkStats/etc/$prog.log  
  
Ttime=`expr $Ttime - 1`  
  
echo >>/opt/BulkStats/etc/$prog.log  
check_db "$1"  
done  
fi  
done  
  
rm -f /BulkStats/data/NXStatisticsCbxGbx.purging  
echo "$prog:\tnEnding at `date`\n" >>/opt/BulkStats/etc/$prog.log
```

Source Code Listing B

check_stats.sh

```
prog=`basename $0`  
  
if test $# -lt 1  
then  
    echo "Need dbname" >>/opt/BulkStats/etc/$prog.log  
    exit 1  
fi  
  
>/opt/BulkStats/etc/$prog.log  
  
##if test -s /opt/BulkStats/etc/$prog.log  
##then  
    ##mv -f /opt/BulkStats/etc/$prog.log \  
    ##/opt/BulkStats/etc/$prog.log.old  
##fi  
  
DBNAME=NAVIS-STATN  
export prog DBNAME  
echo >>/opt/BulkStats/etc/$prog.log  
  
for x in TrkStat CktStat TrunkStat FrCktStat FrLportStat ATMcktStat ATPrtStat \  
    ATMSvcStat ATMTrkStat ATMLPrtNiStat ATMLPrtTrkStat ATMFirstTrkStat \  
    ATMOptTrkStat IpLportStat SmdsLportStat  
do  
  
    echo "Starting update statistics $x at `date`" >>/opt/BulkStats/etc/$prog.log  
    remsh $DBNAME -l sybase -e /opt/sybase/query \  
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```

```
>>/opt/BulkStats/etc/$prog.log 2>&1 <<!  
use $1  
go  
update statistics $x  
go  
quit  
exit  
!  
    echo "Ending update statistics $x at `date`\n" \  
    >>/opt/BulkStats/etc/$prog.log  
  
done  
  
echo "$prog:\tEnding at `date`\n" >>/opt/BulkStats/etc/$prog.log
```

Please amend the Abstract of the disclosure as follows:

Improvements to existing statistical record memory purge procedures and processes are shown and described. Certain procedures ensure that there is adequate temporary memory for storing new statistical records before purging older statistical records from permanent memory. Certain of the procedures wait a predetermined amount of time before reevaluating whether there is adequate temporary memory for storing new statistical records. After older statistical records have been purged, certain of the procedures update any indices or pointers utilized by permanent memory. The improvements may be implemented in a telecommunications system having a plurality of managed elements, each of the managed elements potentially generating statistical data that is communicated to one or more statistics servers.